Canadians seek expanded energy development

Continuing a series of interactions, Alberta Research Council representatives from Edmonton, Canada recently visited with researchers to learn more about INL's energy research, development and demonstration portfolio. They were interested in INL energy systems integration, especially using nuclear energy expertise to extract heavy oil resources deep within Alberta's oil sands reserves.

During remarks, Council Vice President for Energy Ian Potter said, "The Council and INL have similarities. We've come to find areas where we can complement one another, fill in data and technology gaps, and benefit from INL's reputation for unbiased research."

Business lead for Energy Systems and Technologies Mike Hagood said, 'Our ability to develop energy resources within the Rocky Mountain corridor, including Alberta's resources, will greatly impact America's energy security. Such an effort will require innovative science, technology and cooperation between research laboratories such as the Alberta Research Council and INL," said Hagood.

Photo: Mike Hagood welcomes Ian Potter

INL energy systems business lead Mike Hagood welcomes Ian Potter, Alberta Research Council's vice president for energy, to INL.

"Each management team involved in these discussions realizes that it is of mutual interest to sign a memorandum of understanding that formalizes and directs collaborative research aimed at reaching our energy security goals," Hagood said.

Photo: Ian Potter (left) and Earl Mattson

Talks and lab tours also covered INL's unconventional fossil energy recovery capabilities, the production and use of hydrogen, synthetic and bio fuels, coal to liquid fuels, liquefaction of natural gas, and environmental resource protection.

"We discussed INL's ability to reduce uncertainties in energy system design using high performance modeling and simulation computing," said Energy Systems and Technologies director Steven Aumeier. "Prototyping and integrating energy extraction processes and equipment for Alberta's energy industry will be expensive, and we believe energy developers can achieve greater gains and return on investment by collaborating with us," Aumeier said.

Ian Potter (left) listens as Earl Mattson explains how INL's geocentrifuge can model and demonstrate subsurface conditions at energy production sites.

In Alberta, Potter directs carbon capture and storage, bitumen and heavy oil recovery, value-added petroleum processing and enhanced oil and gas recovery. He is an adjunct professor of chemical and petroleum engineering at the University of Calgary, and an assistant adjunct professor in mechanical engineering at the University of Alberta.

Potter was accompanied by 30-year Council employee Ross Chow, manager of mineable oil sands. Chow has been involved in diverse energy development operations involving oil sands, heavy oil, forestry, and environmental systems.

The Alberta Research Council's primary focus is innovating for economic growth. It specializes in converting early stage ideas to marketable products and services. It also delivers innovative science and technology solutions to meet the priorities of industry and government.

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Feature Archive